DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Casey, William
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-027008
Date Inspected: 09-Jan-2012

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: American Bridge/Fluor Enterprises, a JV

OSM Arrival Time: 700
OSM Departure Time: 1530
Location: Job Site

CWI Name: See below

Inspected CWI report:	☑ Yes	☐ No	☐ N/A	**Electrode to specification:**	☑ Yes ☐ No ☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Approved Drawings:**	☑ Yes ☐ No ☐ N/A

CWI Present:	☑ Yes ☐ No
Rod Oven in Use:	☑ Yes ☐ No ☐ N/A
Weld Procedures Followed:	☑ Yes ☐ No ☐ N/A
Verified Joint Fit-up:	☑ Yes ☐ No ☐ N/A
Approved WPS:	☑ Yes ☐ No ☐ N/A
Delayed / Cancelled:	☐ Yes ☑ No ☐ N/A

Bridge No: 34-0006
Component: SAS

Summary of Items Observed:

12W-pp114-W3-3

The Caltrans Quality Assurance(QA) Inspector Rick Bettencourt randomly observed the ABF welder identified as Todd Jackson and ABF helper begin fitting up the lifting lug deck insert identified above. The QA Inspector noted the direction of rolling was stamped with a low stress stamp in the center of the insert plate, so no grinding or welding would mask or deface the identifying marking. The QA Inspector randomly observed the bevel angle to be 45°. The QA Inspector noted the surface of the bevel appeared to be a machined surface with bright shiny metal. The QA Inspector noted the ABF welder was utilizing a prefabricated round copper backing plate held in place with magnets. The QA Inspector noted the fit up was completed on the QA Inspectors shift and appeared to be in general compliance with the contract documents. The QA Inspector randomly observed the Smith Emery (SE) Quality Control (QC) Inspector Salvador Moreno inspect and accept the fit up prior to production welding. The QA Inspector randomly observed the ABF welder begin the SMAW root pass. The QA Inspector randomly observed the SMAW parameters were 1/8” E7018 low hydrogen electrodes with 118 Amps for the root pass. The QA Inspector noted the parameters appeared to be in general compliance with ABF-WPS-1050A-cu. After the SMAW root pass was completed the QA Inspector randomly observed the welder switch to 5/32” E7018 low hydrogen electrodes with 190 Amps and used through the completion of the weld. The QA Inspector randomly observed the ABF welder did not complete the above identified lifting lug hole on the QA Inspectors shift.

11W-pp103-W4-1

Upon the arrival of the QA Inspector at the above identified location, the ABF welder Mike Jimenez was observed

excavating and repairing the above identified weld joint. The QA Inspector randomly observed the ABF welder excavate the previously rejected areas utilizing a burr bit grinder and a grinding disc. The QA Inspector noted the rejected areas were previously indicated with a distinguishing marking indicating the location of the weld defects. The QA Inspector noted a total of (3) three rejected areas in the above identified weld joint. Once the areas were excavated and ground to a weldable profile, the QC Inspector Salvador Moreno performed magnetic particle testing of the excavations. The QC Inspector informed the QA Inspector no relevant indications were located at the time of the testing. The QA Inspector noted the dimensions of the excavations were as follows: 1.) D=7mm, W=15, L=65mm, 2.) D=9mm, W=12, L=63mm and 3.) D=12mm, W=12mm, L=63mm. The QA Inspector randomly observed the ABF welder preheat the excavated areas and the surrounding base material to 100 degrees F prior to performing the SMAW repair. The QA Inspector randomly observed the ABF welder begin the SMAW repairs utilizing 1/8" E7018 low hydrogen electrodes and 120 Amps. The QA Inspector randomly observed and noted the weld repairs were completed on the QA Inspectors shift. After the repairs were completed the QA Inspector observed the ABF welder grind the weld reinforcement flush with the base metal.

Summary of Conversations:

As a courtesy the QA Inspector asked the QC Inspector John Pagliero to perform UT of an area that was previously accepted by him. Mr. Pagliero performed the additional UT at the request of the QA Inspector. Mr. Pagliero informed the QA Inspector he was able to reproduce the same rejectable indication located by the QA Inspector. The QC Inspector informed the QA inspector he would reject the weld and have the area excavated and repaired.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy 510-385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Bettencourt,Rick	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer